

Get Real! The Role of Objects in the Digital Age

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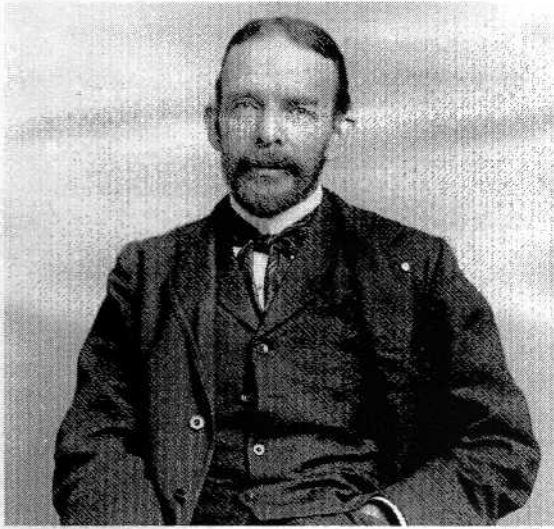
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These days, the chances of encountering any given museum object online are much greater than seeing it in person. The advantages of digital collections—findable, searchable, replicable, manipulable—have by now been well documented. The sheer volume of collection information available digitally is staggering when compared to the number of objects that could realistically be accessed in person. Not only that, users now have an ever-increasing number of ways to tag, share, annotate, rearrange, and recontextualize these digital collections. Artifacts that would otherwise be hidden away in storage are reclaimed and rejuvenated by gaining a second life as digital objects. New technologies also make it easier for the community in whose trust the objects are held to help define their meaning and significance—or at least participate in a conversation about them.

For the time being, the process of collecting, preserving, and exhibiting physical objects continues. The cost of doing so becomes ever more dear as collections accumulate and age. Choices must be made about what to keep, what to display, and where to put limited conservation resources. Even in the digital realm where space is less of an issue, resource decisions must be made about what to photograph, research, describe, and publish. By and large, these decisions are still in the hands of a relatively small number of curators and administrators. Now that physical and digital collections have coexisted for a number of years, it seems appropriate to ask: What have emerged as the peculiar strengths of each format? What effects are digitization and the participatory Web having on the care, study, interpretation, and display of physical objects? And what have we learned that can inform our efforts to appropriately balance these activities moving forward?

To help frame a response, we might look to George Brown Goode, director of the United States National Museum (then the collections arm of the Smithsonian Institution) in the late 19th century and one of America's pre-eminent museum administrators. Goode's career coincided with another transformational time for museums as they moved away from being exclusive semiprivate enclaves enjoyed mostly by scholars or the wealthy, and

toward a model of wider civic education and engagement. In this context, Goode pioneered new forms of accessible exhibits first at the famed 1876 Centennial Exhibition in Philadelphia, and later at a new purpose-built museum facility (now the Arts and Industries Building) next to the Smithsonian Castle. In his writings, Goode proposed that museums serve three particularly valuable functions as repositories of reference material, places of public education, and preservers of collective memory. As these functions seem relevant to an examination of the role of museum objects today, let us examine each in turn.



OBJECTS AS REFERENCE COLLECTIONS

The first (and original) function of the museum is as a place of research, complete with reference collections. Goode stated: "In every properly conducted museum ... provision should be made not only for the exhibition of objects in glass cases, but for the preservation of large collections not available for exhibition, to be used for the studies of a very limited number of specialists."¹ These collections, rarely seen by the general public, form what historian Steven Conn has called an "alternative" or "parallel museum universe." He further notes, "We know very little about that world not on display, at least not as much as we know about the famous collections that are.... These museum basements may represent for museum scholars a vast undiscovered country."²

For this reason, it seems that these rarely seen objects have the most to gain from being exposed in digital form. Scholars and other interested parties can learn a great deal simply from browsing online collections for items of interest, cataloguing and comparing similar objects from multiple institutions, and examining digital photographs. Without the online access, it would be nearly impossible to discover the location of these objects, let alone travel to see them all in person. Even well-known artifacts can be hard to access due to their value, fragility, storage conditions, or other factors.

Digital exploration can enhance the study of objects in other ways as well. Curator Nancy Davis of the National Museum of American History describes how she is able to gain new insights by manipulating digital images and zooming in to narrow her focus on particular features of an artifact. But relying on digital imagery can also have its down side. Davis relays a cautionary tale about a colleague who wrote a paper on a particular painting. Using a digital

George Brown
Goode, c. 1880s.
Courtesy of
Smithsonian
Institution.

facsimile as his source, he turned out to be mistaken about its actual size by several orders of magnitude. The error undermined his entire argument.³

Few people if any are suggesting that digital surrogates can replace physical artifacts entirely. However—mirroring a conversation in the library world—some are questioning the wisdom of unnecessary duplication across institutions when access to good digital records will suffice for most purposes. Some of this concern is about maximizing cost efficiency, while others argue that museums should become more selective in what they collect for environmental reasons. Because storing and preserving objects in climate-controlled conditions requires a great deal of energy and other natural resources, museums might consider shifting some of their preservation focus from the physical to the digital.⁴ However, this reliance on technology only partially solves the problem, as anyone who manages digital data will tell you. Even fragile objects may have a longer shelf life if left undisturbed than today's digital storage media and file formats, and storing data has significant resource requirements as well. Like physical collections, digital assets require professional care and adequate institutional commitment to ensure their long-term preservation.

OBJECTS AS LEARNING RESOURCES

The second main function of the museum described by Goode is as a place of democratic education, "adapted to the needs of the mechanic, the factory operator, the day laborer, the salesman, and the clerk, as much as to those of the professional man and the man of leisure."⁵ Goode's attitude toward education (despite its outdated gender-bias) is worth further examination as it has some fascinating parallels to modern-day approaches to digital collections.

For Goode, museum education meant the systematic display of lots of objects and good labels: "[Museum] specimens must be prepared in the most careful and artistic manner, and arranged attractively in well-designed cases and behind the clearest of glass. Each object must bear a label, giving its name and history so fully that all the probable questions of the visitor are answered in advance."⁶ Thus displayed, museum collections "cultivate the powers of observation, and the casual visitor even makes discoveries for himself, and, under the guidance of the labels, forms his own impression"; further, objects are a "powerful stimulant to intellectual activity."⁷

Goode considered his carefully-constructed arrays of objects as catalysts to individualized meaning-making. In some ways, this impulse is echoed in contemporary discussions around the presentation of online collection databases. As the amount of available raw collection data has increased, technologists inside and outside museums have been working to design information structures, interfaces, and tools that help users personalize their interactions with, and extract meaning from, sets of descriptive data. Taken to its limit, this impulse has led a growing number of museums to simply publish a version of their entire collection dataset in a downloadable format that allows users



Technology exhibits in the U.S. National Museum (now known as the Smithsonian Arts and Industries Building), c. 1888. Courtesy of Smithsonian Institution.

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themselves to design a customized interface or mash it up with other kinds of data in various ways.

Like Goode, proponents of this type of self-directed exploration assume that a significant portion of the “meaning” generated from experiencing an aggregation of museum objects, or even a single object, stems from the user’s own intentions and behavior and not the museum’s. This is even more true with digital data when technology can help users to more easily search and sort objects in myriad ways, discover related items of interest, apply customized descriptive terms, or repurpose museum content in other contexts. Such activities may be what these authors had in mind when discussing the online presentation of natural history specimens: “New generation Web sites provide a retrieval mechanism that is sophisticated enough to take the data in natural sciences collections and add meaning through automation.... Interfaces that permit users to frame their own questions and interpret the answers using their own frames of reference are likely to encourage the users to stay longer and are also likely to attract a wider variety of users.”⁸

What do users make of such opportunities when offered to them? The results are decidedly mixed. For example, Sydney’s Powerhouse Museum has been a leader in making collection data available and designing “user-centred navigation and exploration tools” that facilitate serendipitous investigation. They have moved in this direction in conscious opposition to more static and

labor-intensive "exhibitions and 'expert-led' storytelling through narrative arrangement of objects" or even "small 'curated' sets of objects deemed to be of interest to the public."⁹ While their collection interface has received a good deal of both traffic and attention, the Powerhouse has reported disappointment that some of the more advanced features have not received as much use as they anticipated, particularly for education purposes. Rather, teachers and students continue to gravitate toward selected objects that have particular relevance to the school curriculum as well as traditional, narrative microsites.¹⁰ Whether this is owing to lack of awareness and knowhow among educators and others, or simply lack of interest, is something that even the Powerhouse admits is still an open question.

Another active area of experimentation is the development of tools that let users build, annotate, and/or share personalized "galleries" of digital artifacts. Sometimes these tools are meant to be an online-only experience, or they may be combined with mechanisms that let users "bookmark" items on display before or during a visit to the museum. Research shows that a relatively small number of people make use of the ability to create their own galleries, and when they do, an even smaller number ever return to them. A few examples that have been designed for very specific uses, such as facilitated classroom activities, have been somewhat more successful.¹¹

These experiments can be seen as part of a larger debate about what specific role museums and their content experts should play in mediating or directing the individualized discovery process described by Goode. He himself identifies one key role: to anticipate and answer questions. "What is it?" "When and where and by whom was it used?" "Is it the real thing?" "How do you know?" (And of course, "Can you tell me if the one I have is real and how much it is worth?") Staff inside museums may not be the only, or even necessarily the best ones to answer these questions for a given object. In that sense the Internet has great potential to facilitate the exchange of information with others who possess deep knowledge in specialized areas. Other types of knowledge are contributed by people who may not be subject-matter experts but who can provide additional historical, cultural, or aesthetic perspective.

Managing this type of collaborative knowledge-sharing, and the increase in public inquiries that typically attends an increase in published collections information, is a huge challenge for curatorial staff who are already stretched thin.¹² However, given that the Internet is changing the way that knowledge is constructed and exchanged in nearly every discipline, museums must take this responsibility seriously or risk a loss of relevance and diminished presence in the larger marketplace of ideas. For now, the most sought-after type of interactivity in the learning process still seems to be real communication by and with those who know the collections best—not only curators, but artists, creators, collectors, and users of objects. Any effort to directly or indirectly facilitate such communication, and do so openly so anyone can benefit from the exchange, will enhance museum learning experiences.¹³

Another role of curators is to make selections: what to display, what to juxtapose, what bits of context to provide. Curator Nancy Davis feels that the ability to make these kinds of selections in interesting ways and add new perspectives that others might not have thought of is a useful role for curators, and one that is often appreciated, while allowing that hers is not the only perspective that matters.¹⁴ As long as there have been museums, viewers of objects have constructed their own meanings around them, as Goode recognized. The difference today is that (whether sanctioned by museums or not) the participatory Web gives visitors the opportunity to "publish" their perspective alongside that of museums in unprecedented ways.

Paradoxically, a crowded information space may even enhance the value of interpretive content from museums, rather than diminish it. In one informal survey at the National Museum of American History, 72 percent of participants said that the role of museums as trusted sources of online information would become more important in the digital age. Only about 9 percent thought it would become less important, with the remainder saying it would remain about the same. Even so, to succeed in this new information environment, it is imperative that museums ensure that their content can be easily found, accessed, and used, as well as actively reach out to others with like interests.

And what of the objects themselves? Conn puts forward an argument that over the 20th century, as museums increasingly focused on their educational role, "the place of objects in museums has shrunk as people have lost faith in the ability of objects alone to tell stories and convey knowledge."¹⁵ Whereas "museums of the late nineteenth century used a strategy of visual abundance to underscore whatever story they set out to tell," in today's exhibits "serendipity has been replaced with carefully chosen curation."¹⁶

Among advocates for digital access to collections and user participation, there is a sense that these things can in some way combat the hegemonic control over interpretation by museum experts and re-introduce some of the serendipity, material profusion, and self-discovery that characterized previous eras. In our experience at the Smithsonian, users themselves seem to express an interest in both self-directed access to raw information (especially combined with the ability to ask questions) and the more passive enjoyment of mediated experiences. In other words, just as some visitors to the physical museum want to take the tour and some just want to grab the map and bounce around on their own, traffic analysis and other forms of evaluation show that online visitors follow similarly divergent use patterns.

The mass of online museum data that is becoming available certainly has the potential to increase knowledge in important ways. However, there is more to learning than simply accessing information. A different type of learning or meaning-making happens in the presence of actual objects. Audience researchers Susie Wilkening and James Chung have shown that this is true even at a very young age. When they interviewed adult museum buffs (whom they refer to as "museum advocates"), most could recall a seminal museum

experience from childhood—seven being a typical age—that was highly evocative and helped cement a lifelong love of museums. These “sticky” experiences typically occurred not in highly interactive hands-on environments, which we often assume are most appropriate for children, but in “old-fashioned,” static, object-based exhibits that created internal narrative and internal activity.”¹⁷ Theirs is not the only data showing that, even in this technology-obsessed age, museum visitors still gravitate toward the basic elements that Goode was advocating more than a hundred years ago: a variety of compelling objects supported by well-written labels.¹⁸

OBJECTS AS COLLECTIVE MEMORY

That leads us to Goode’s third function of museums: to serve as witnesses to the past whose objects provide “permanent landmarks of the progress of the world.”¹⁹ When he penned those words, it was in the context of grappling with a category of museum collection that was relatively new in the late 19th century but growing fast, that of cultural and ethnographic artifacts. Goode and others were attempting to use such artifacts to systematically organize and describe human culture and technology, as had been done in other scientific disciplines. But the Smithsonian, having been designated as the official custodian of the U.S. government collections, was also home to a growing assortment of miscellany termed “Historical Relics”—everyday objects having an association with both famous figures like George Washington and, increasingly, common folk.

In 1884 Goode was quoted by the *New York Times* as saying that it was the role of the museum collection to “enter into every detail of human life, not only of the present but of the past, and ... to be the custodian of the future. It will show our great-great-grandchildren how their forefathers dressed, how they lived, cooked, and ate their food, how they amused themselves.”²⁰ This was quite a departure from the origin of the U.S. National Museum as a repository of specimens from exploratory and scientific expeditions. After Goode’s time, the types of “landmark” objects deemed worthy to collect by the Smithsonian, and other museums, continued to expand to include everything from costume to decorative arts to machinery of all kinds, to cite just a few examples. Certain objects, such as the Star-Spangled Banner, the first ladies’ gowns, or the Wright flyer, would acquire a special significance, described by sociologist Sherry Turkle as being “marker[s] of relationship and emotional connection,” in the collective psyche.²¹

There is a pair of black slip-on shoes in the collection of the National Museum of American History that nicely illustrates the ability of some objects to be at once both ordinary and extraordinary. Taken at face value, the shoes provide a mildly interesting record of early 21st-century office fashion. When you find out that the owner of the shoes carried them down twenty-five flights of stairs as she fled the south tower of the World Trade Center on September 11, 2001, they take on a whole new significance.²²



Shoes worn by
World Trade
Center evacuee
Maria Benavente
on September 11,
2001, Courtesy
of Smithsonian
Institution.

Just as most of us treasure objects of personal significance to our own lives, we value museums for preserving objects of collective importance. Here is where digital surrogates seem to have the least potential to replace or reproduce the sense of wonder, emotional connection, nostalgia, or witness to history that we feel in the presence of an evocative object—whether a rock from the Moon, a thought-provoking work of art, or the hat that Abraham Lincoln wore the night he was shot—as well as object-rich settings that transport us to another time and place. Many have described such objects as having an “aura” that is almost completely flattened and lost in translation when viewed on a computer screen. So far, their availability in digital form has only seemed to whet the appetite of visitors who want to experience such artifacts firsthand.

Technology can come into play when visitors share their in-person experiences with others by posting online photos, blogging or tweeting about their visit, and similar activities. For museums, this is a wholly new form of unsolicited feedback that can reveal much about our visitors and their impressions, if we take time to listen. At the National Museum of American History we actively engage these visitors where appropriate by answering questions, responding to suggestions, or just thanking them for their interest. Sometimes this interaction takes place on the museum's own digital turf, but often it's happening out on other sites. While it's impossible to give every visitor this level of attention, such efforts cumulatively generate goodwill by demonstrating a willingness to listen and value external input.

Simple interactions can satisfy the desire that many visitors have to just socialize and express their thoughts about objects or experiences that they

find significant. Some museums are going further by using technology to include visitors in conversations about what to collect or exhibit. These decision-making processes, which can be complex and a bit messy, have not typically been conducted in public view. However, today's Internet offers a variety of useful ways to either cast a very wide net if that is useful for soliciting input, or target very specific communities of interest—or both. For example, at the National Museum of American History, one curatorial team used the museum blog to hunt for specific regional artifacts and stories for an upcoming exhibit on Chinese restaurants.²³

The Liberty Science Center has employed an even more ambitious strategy for their upcoming *Cooking* exhibition. Using the Ning social networking platform, they have established a site to share information, collaboratively generate ideas, test concepts, and, in their words, “open source, as much as we can, the exhibition design and development process.”²⁴ The long-term effects of such experiments are not yet known, but they show how digital interaction and collaboration might enhance the process of collecting culturally significant artifacts and even designing—or at least complementing—experiences which are intended to be, in the end, highly visceral and personal.

PHYSICAL AND DIGITAL OBJECTS AS EQUAL PARTNERS

By all accounts, museums have entered a fruitful phase of experimentation as we learn how to use online and mobile technologies and social applications to enhance both the visitor experience and professional practices around the collection, study, and interpretation of objects. This is important to do, since the line that divides the physical and online worlds, particularly for younger audiences, is increasingly blurred. So too should the care and presentation of physical and digital collections in museums be seen as interwoven strands of a single strategy, rather than competing priorities carried out independently of each other.

An excellent example of this kind of unified strategy occurred at the National Museum of American History for the first anniversary of the September 11, 2001, terrorist attacks. The museum had acquired a significant collection of September 11 artifacts, which were to be displayed in an exhibit and shared online. The unique nature of the project—the events had hardly passed into history at that point—required that the museum rethink the usual approaches. In the end, the various project elements played to the strengths of each medium. The physical exhibition was relatively spare and focused on the inherent power of the objects (like the shoes mentioned above) and the stories behind them. Knowing that the emotionally charged nature of the physical experience could not be translated online, the team instead used the website to provide more descriptive information about the full collection in a searchable database. Throughout, the project took an inclusive stance that everyone was a witness to history that day. Both onsite and online, visitors had the opportunity to post their thoughts and experiences (and the more than

20,000 handwritten cards collected in the museum were digitized and made available online). On the website, curators shared their own stories about the experience of acquiring artifacts in the aftermath of the disaster.

The fresh, holistic, inclusive approach taken by the September 11 project is one that should be applied to every museum project, and indeed to every museum's core institutional strategy. Too often we have worried about whether onsite and online experiences are competing for the hearts and attention of our audiences. Judging from recent experience and considering the variety of roles that museums play, as I have attempted to do here, clearly there is a proper place for both. On the one hand, despite the giddy enthusiasm that we rightly feel over the possibilities opening up for digitally based interaction and knowledge creation, we continue to value, in the words of Steven Conn, "the simple pleasure of looking at and the thrill of being in the presence of real things, made by human hands through time and across space or fashioned by nature in all its astounding variety."²⁵ On the other hand, we recognize the power of digital technology to broaden access and facilitate connections in ways that both quantitatively and qualitatively increase the value of museums and their collections.

All that being said, we must also acknowledge that these newer forms of digital outreach compete in a very real way for a finite pool of resources, primarily money and staff time, with other, more established institutional priorities. While it may be possible to find additional resources, the more likely scenario is that museums must reallocate resources in ways that recognize the strengths of both mediums—deciding, in effect, what they will not do in physical space so that something worthwhile may be accomplished online, or vice versa. Avoiding these hard choices by simply giving staff more work, which is too often the approach, is not a long-term solution and typically leads to mediocre results as well as counterproductive bad feelings.

While making substantive changes to entrenched practices can be painful in the short run, it may be necessary if museums wish to retain their cultural influence in a changing world over the long run. The good news is that museums, unlike some other casualties of the information superhighway, still appear to earn high marks as trusted sources of information, focal points for cultural exchange, and venues for meaningful, authentic experiences. Let us view the digital revolution not as the death knell for the museum as we know it but as an opportunity to enhance the relevance of our collections in the lives of the public that we serve.

- 1 George Brown Goode, "The Museums of the Future," in *A Memorial of George Brown Goode Together with a Selection of His Papers* (Washington, D.C.: Government Printing Office, 1901), 255.
- 2 Steven Conn, *Do Museums Still Need Objects?* (Philadelphia: University of Pennsylvania Press, 2010), 23.
- 3 Interview with the author, May 2010.
- 4 See Elizabeth Wylie and Sarah S. Brophy, "Saving Collections and the Planet," *Museum*, November/December 2009, 52–59.
- 5 Goode, "The Museums of the Future," 248.
- 6 Goode, "The Museums of the Future," 248.
- 7 George Brown Goode, "Museum-History and Museums of History," in *A Memorial of George Brown Goode Together with a Selection of His Papers*, 75.
- 8 Elycia Wallis, Basil Dewhurst, and Alan Brooks, "Deriving Meaning from Specimens: Making Zoological Data Available on the Web," in *Museums and the Web 2005: Proceedings*, ed. J. Trant and D. Bearman (Toronto: Archives & Museum Informatics, 2005), <http://www.archimuse.com/mw2005/papers/wallis/wallis.html> (accessed May 19, 2010).
- 9 Sebastian Chan, "Tagging and Searching—Serendipity and Museum Collection Databases," in *Museums and the Web 2007: Proceedings*, ed. J. Trant and D. Bearman (Toronto: Archives & Museum Informatics, 2007), <http://www.archimuse.com/mw2007/papers/chan/chan.html> (accessed May 19, 2010).
- 10 Sebastian Chan, "Spreadable Collections: Measuring the Usefulness of Collection Data," in *Museums and the Web 2010: Selected Papers from an International Conference*, ed. J. Trant and D. Bearman (Toronto: Archives & Museum Informatics, 2010), 189 (also available at <http://www.archimuse.com/mw2010/papers/chan/chan.html>).
- 11 Paul F. Marty, "My Lost Museum: User Expectations and Motivations for Creating Personal Digital Collections on Museum Websites," working paper (electronic copy), School of Library and Information Studies, College of Communication and Information, Florida State University, 2010.
- 12 See Chan, "Tagging and Searching," for a case study.
- 13 For specific ideas on stimulating interactions with online visitors, see Dana Allen-Greil and Matthew MacArthur, "Small Towns and Big Cities: How Museums Foster Community On-line," in *Museums and the Web 2010*, 219 (also available at <http://www.archimuse.com/mw2010/papers/allen-greil/allen-greil.html>).
- 14 Interview with the author, May 2010.
- 15 Conn, *Do Museums Still Need Objects?*, 7.
- 16 Conn, *Do Museums Still Need Objects?*, 23.
- 17 Susie Wilkening and James Chung, *Life Stages of the Museum Visitor* (Washington, DC: American Association of Museums, 2009), 43–44.
- 18 For another case study, see Peter Samis and Stephanie Pau, "After the Heroism, Collaboration: Organizational Learning and the Mobile Space," in *Museums and the Web 2009: Proceedings*, ed. J. Trant and D. Bearman (Toronto: Archives & Museum Informatics, 2009), <http://www.archimuse.com/mw2009/papers/samis/samis.html> (accessed August 12, 2010).
- 19 James Conaway, *The Smithsonian: 150 Years of Adventure, Discovery, and Wonder* (New York: Knopf, Smithsonian Books, 1995), 129.
- 20 Sally Gregory Kohlstedt, "History in a Natural History Museum: George Brown Goode and the Smithsonian Institution," *The Public Historian* 10, no. 2 (1988): 14.
- 21 Sherry Turkle, "Introduction: The Things that Matter," in *Evocative Objects: Things We Think With*, ed. Sherry Turkle (Cambridge, MA: MIT Press, 2007), 5.
- 22 See <http://americanhistory.si.edu/sep->

tember11/collection/record.asp?ID=46
(accessed August 12, 2010).

- 23 See <http://blog.americanhistory.si.edu/osaycanyousee/2010/08/chop-suey-san-francisco.html> (accessed May 19, 2010).
- 24 See <http://cookingexhibitchefs.ning.com> (accessed August 12, 2010).
- 25 Conn, *Do Museums Still Need Objects?*, 57.